attaching connections to said tube bottoms, to ends of said sheet metal jacket, or to both said tube bottoms and ends of said sheet metal jacket, said connections being configured for attachment to an exhaust pipe communicated with the exhaust gas from the internal-combustion engine, each said connection defining a central opening for communicating said rectangular tubes with the exhaust pipe.

REMARKS

Upon entry of this Reply, claims 22, 31-35, and 38 will remain in this application. Claims 1-21, 23-30, 36, and 37 have been canceled. Reconsideration of the application is respectfully requested.

Reconsideration of the rejection of claim 22, and dependent claims 31 and 38, based on U.S. Patent 5,803,162 to Karbach et al. in view of U.S. Patent 4,546,825 to Melnyk et al. is respectfully requested. Neither the Karbach et al. patent nor the Melnyk et al. patent discloses the use of a plurality of rectangular tubes. In the Karbach et al. heat exchanger, individual flow ducts are assembled of stamped sheet metal shells. The Karbach et al. lugs are components of metal insertion sheets which, in a meandering manner, are tilted transversely with respect to a flow direction. In contrast,

claim 22 requires that the lugs be either directly attached to the walls of the rectangular tubes or formed in one piece out of the walls of the rectangular tubes. In the Melnyk et al. heat exchanger, moreover, round tubes are fastened, by soldering, to the tube bottoms; this is apparent, for example, from lines 41 to 45 in column 2. No possible combination of the Karbach et al. and Melnyk et al. disclosures would result in a heat exchanger manufacturing method comprising, in addition to others, the particular step of arranging a plurality of lugs by either the directly attaching operation or the integrally forming operation particularly defined by claim 22.

It is also respectfully submitted that it would not have been obvious to modify the Karbach et al. heat exchanger in the manner proposed by Examiner. The Melnyk et al. heat exchanger is not designed such that exhaust gas of an internal combustion engine could flow through it. Such an exhaust gas is so hot that soldered connections would not provide sufficient stability.

It is respectfully submitted that claim 22 is patentable for reasons discussed above. The rest of the claims remaining in this application depend on claim 22 and are patentable as well.

In addition, with respect to the rejection of claims 33-35 based on German publication DE-OS 2,102,744 to Kim, the Kim

publication discloses, in Figure 2, that bolts 3 are welded as spacers between round tubes of a heat exchanger. This cannot be compared with the spacing elements integrally formed from tube walls required by claim 33.

All claims remaining in this application are patentable for reasons discussed above. This application, therefore, is now in condition for allowance.

Should the Examiner have any questions after considering this Reply, the Examiner is invited to telephone the undersigned attorney.

Respectfully submitted,

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